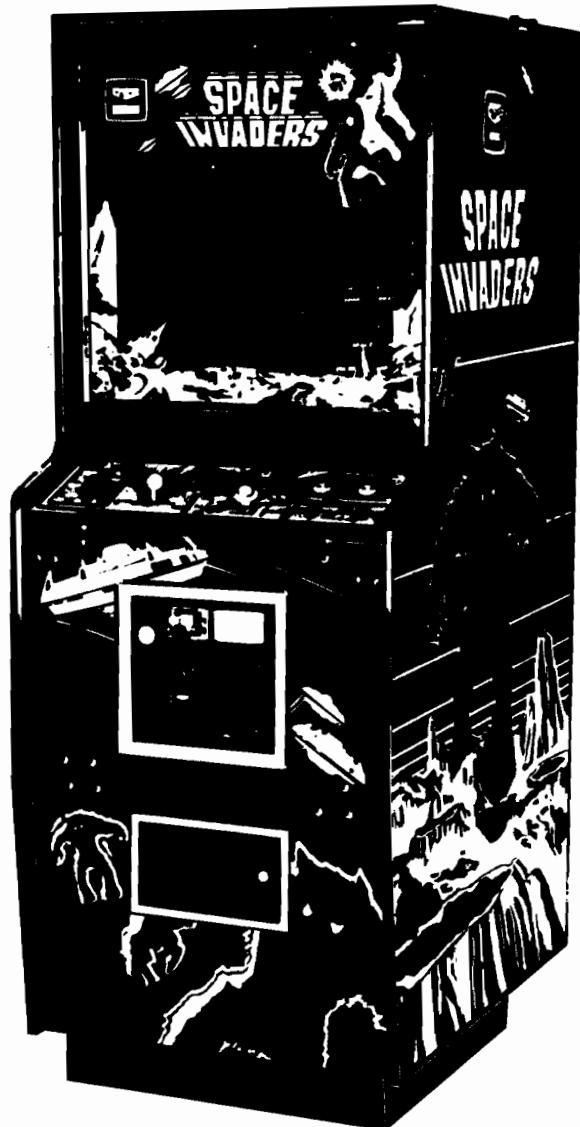


SPACE INVADERS



**SERVICE INSTRUCTIONS
AND PARTS CATALOG**



TAITO CORPORATION

1. Name of Part (See Fig., 1 and 2)

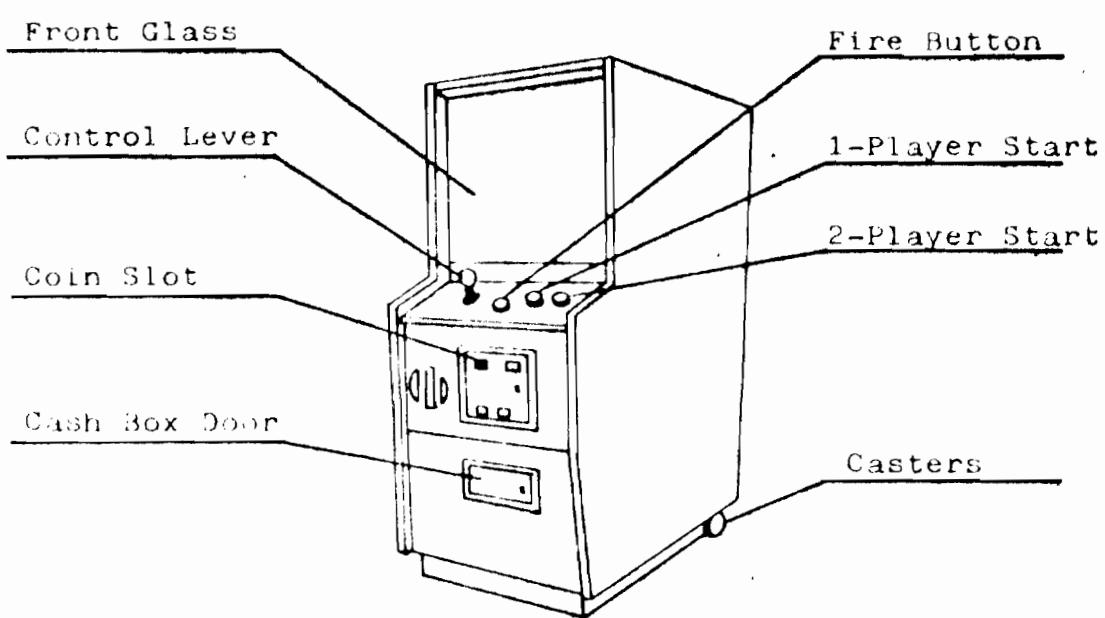


Fig. 1

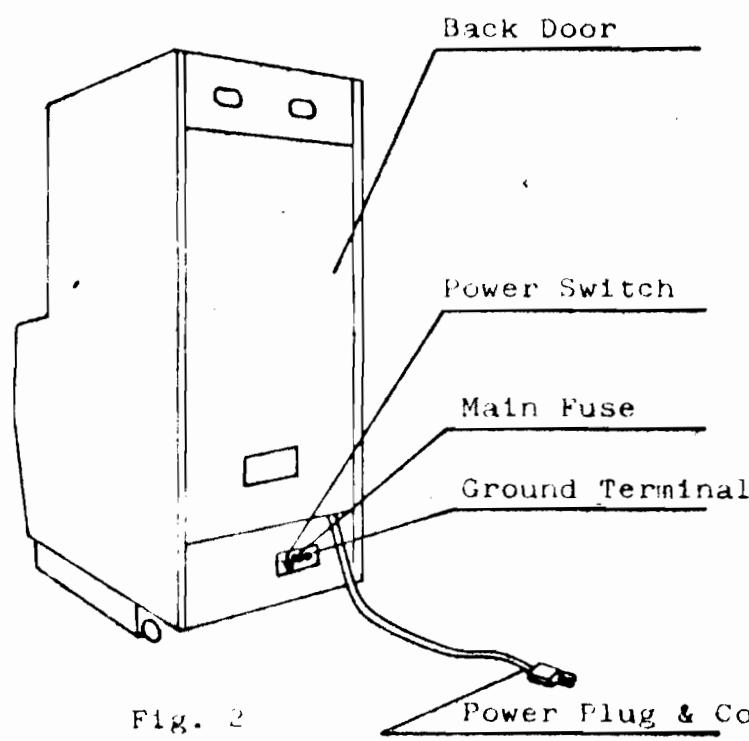


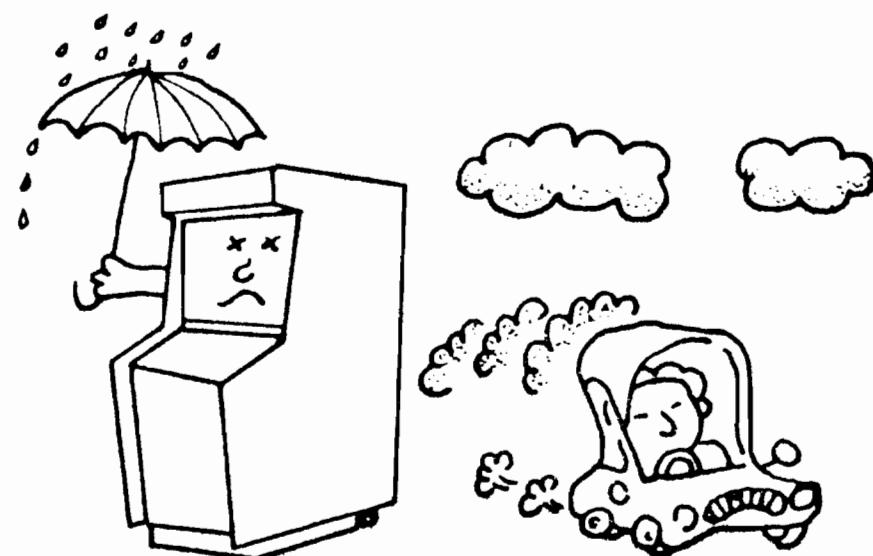
Fig. 2

2. Transportation and Installation

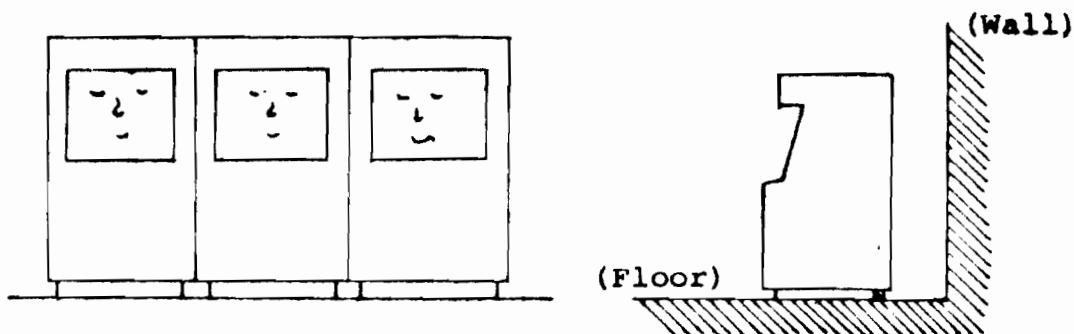
- Avoid rough handling in transportation; the picture tube is fragile.
- Taito "SPACE INVADERS" is for indoor use.
- Install the machine indoors only.



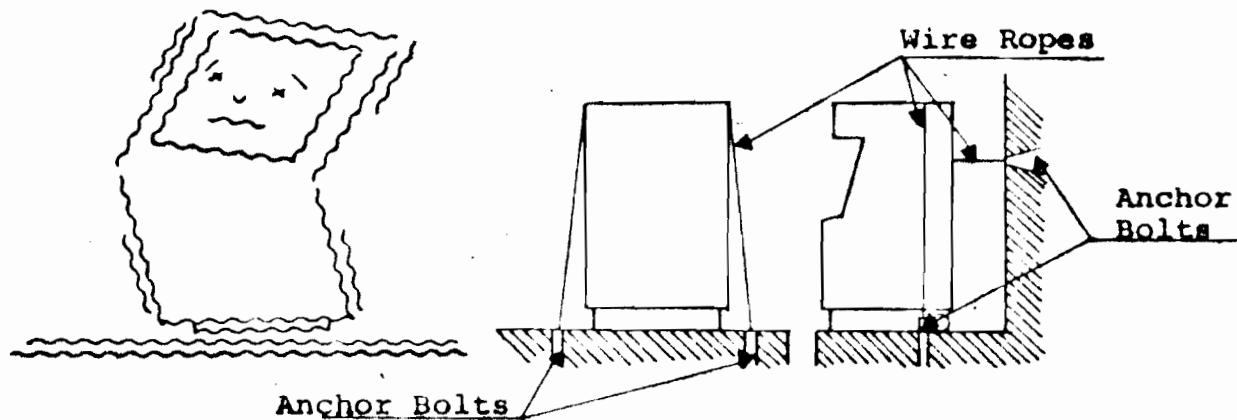
- Do not install the machine outdoors.



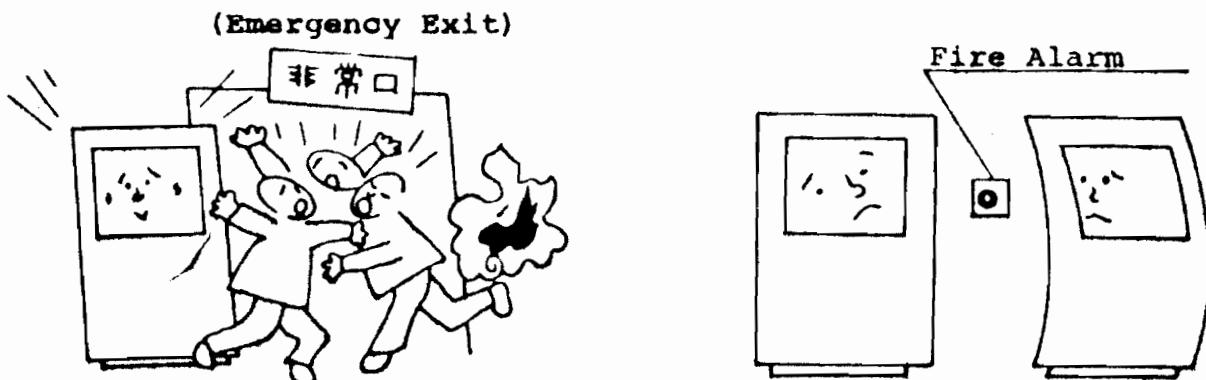
- Install the machine on flat-surfaced floor and provide suitable space in front of the machine.



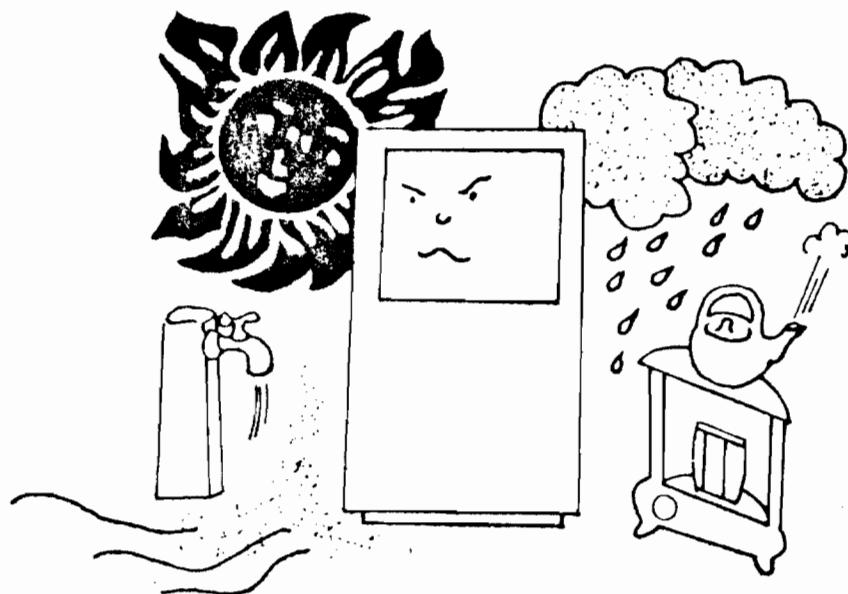
- In case of installation in location with vibration, fix the machine by the use of anchor bolts and wire ropes as shown below.



- Do not install the machine in dangerous places viewed from the angle of disaster prevention.



- Do not install the machine in location with exposure to direct sunlight or excessive heat in order to prevent the unit from rising internal temperature. Also, do not install the machine in location with being damp or dusty.



- Install the machine in location so that no children can enter the place between the backside of the machine and the wall of the location.
- Ensure all connections to the PCB's are secure.
- Never fail to connect the ground terminal.
- Insert the power plug into a proper outlet and turn the power switch on.

3. Handling Note and Warning

Note:

- Erroneous or partial picture may appear on the screen when the machine is first switched on. This is typical of the characteristics of the CPU, and will correct itself automatically when the power switch is turned off and on.

Warning:

- Taito "SPACE INVADERS" uses a CPU and the latest solid-state circuitry for long life, however, as with sophisticated electronic equipment certain precautions must be observed to avoid damage.
 - (1) Do not attempt to service with ordinary testing equipment, since the internal voltage of the testing equipment may cause damage to the circuitry..
 - (2) Never connect or disconnect any of the solid-state modules while the power is on.

4. Routine Maintenance

- Owing to the solid-state electronic circuitry, this machine should require very little maintenance and only occasional adjustments, however, it is necessary to take measures to insure its daily safety.

5. Playing Instructions

- o One or Players.
- o Insert coin(s).
 - 1 coin - 1 player (3 laser bases... Adjustable)
 - 2 coins - 2 plays (or 2 player game)
- o Select one or two player game.
- o As the "attacking sound" is heard, invaders appear on the screen. Also, a laser base and four fortresses appear on the lower side of the screen.
- o To move the laser base left or right by using the Control lever.
- o To fire laser, push the fire button.
- o In two player mode, the play alternates between the two.
- o Scoring:



....., ???



..... 30 pts.



..... 20 pts.



..... 10 pts.

Functional Description of Game :

- o Invader advance step by step against the laser base as they move left and right.
- o Fortresses are gradually destroyed by the attack of invaders. They are also destroyed by laser.
- o As the number of invaders decreases, they move fast.
- o UFO hit gives the player mystery score (50, 100, 150, or 300 points).
- o When score reaches 1,500 points(adjustable), a bonus laser base appears with "beep" sounds.
- o Game ends when all laser bases are hit by invader missiles or when invaders overrun the base.
- o Up to 99 coin can be credited.

6. Adjustments on Power Supply P.C. Board

(See Fig. 3)

Caution: The line voltages should be set within the limits.

Failure to do so may result in destruction of the IC's.

- To check the output voltages, measure them on the G-connector or the Q-connector.

(See the cable block diagram, AAR00160 in this manual.)

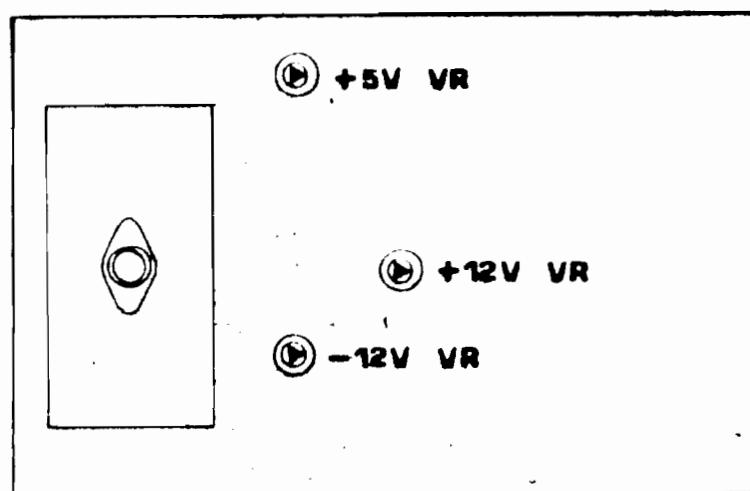


Fig. 3

- -12V VR... Pot for adjusting -12V line voltage
(Adjustable range: -12V - -15V DC)
- + 5V VR... Pot for adjusting 5V line voltage
(Adjustable range: 5V - 6V DC)
- +12V VR... Pot for adjusting 12V line voltage
(Adjustable range: 12V - 15V DC)

- SW3 and SW5... Switches for adjusting the number of laser bases.

(Optional Settings)

Laser Bases	SW3	SW5
3	ON	ON
4	OFF	ON
5	ON	OFF
6	OFF	OFF

Table 1

The number of laser bases is preset at "3" at the factory.

- SW6... Switch for adjusting bonus points.

(Optional Settings)

SCORE	SW6	Laser Base
1000	ON	1
1500	OFF	1

Table 2

The bonus points are preset at "1500" at the factory.

- SW7... Switch for adjusting play pricing displayed on the screen.

When this switch is set in "ON" position, the play pricing is displayed on the screen as follows:

1 COIN - 1 PLAYER, 2 COINS - 2 PLAYERS

("OFF" position : Nothing is displayed.)

- SW1, SW2,

These switches are for the factory adjustments, and should be set in "ON" position.

7. Adjustments on Game & Sound PC Board (See Fig. 4 and Tables 1 and 2)

To increase the sound, turn each pot(VR1 - VR8) as show below.

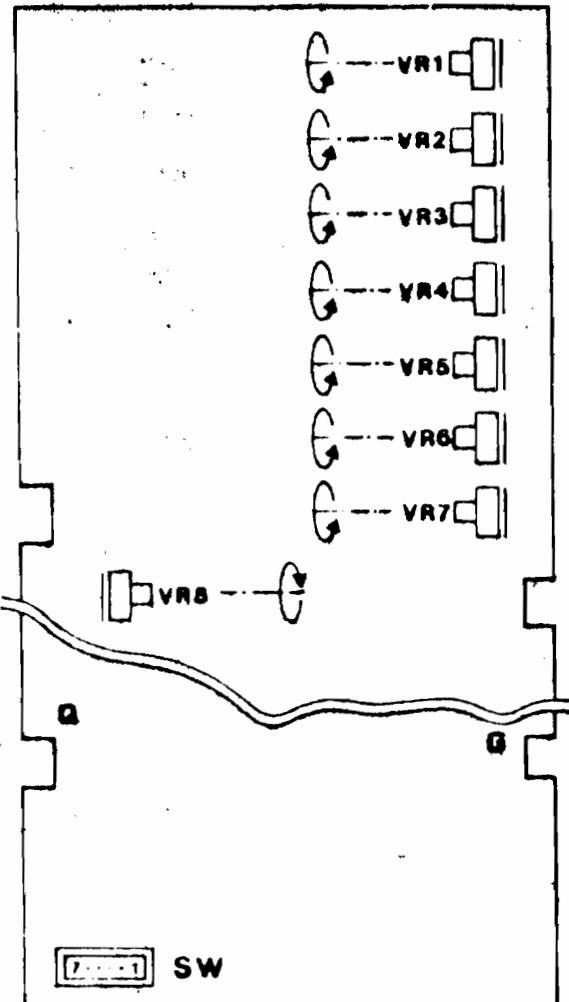


Fig. 4

- VR1... Pot for adjusting volume of UFO.
- VR2... Pot for adjusting volume of laser base when firing.
- VR3... Pot for adjusting volume of laser base when destroyed.
- VR4... Pot for adjusting volume of invaders when destroyed.
- VR5... Pot for adjusting volume of "beep" when bonus is awarded.
- VR6... Pot for adjusting volume of invaders when advancing.
- VR7... Pot for adjusting volume of UFO when destroyed.
- VR8... Pot for adjusting total sound volume.

8. Adjustments on TV Monitor (See Fig. 5)

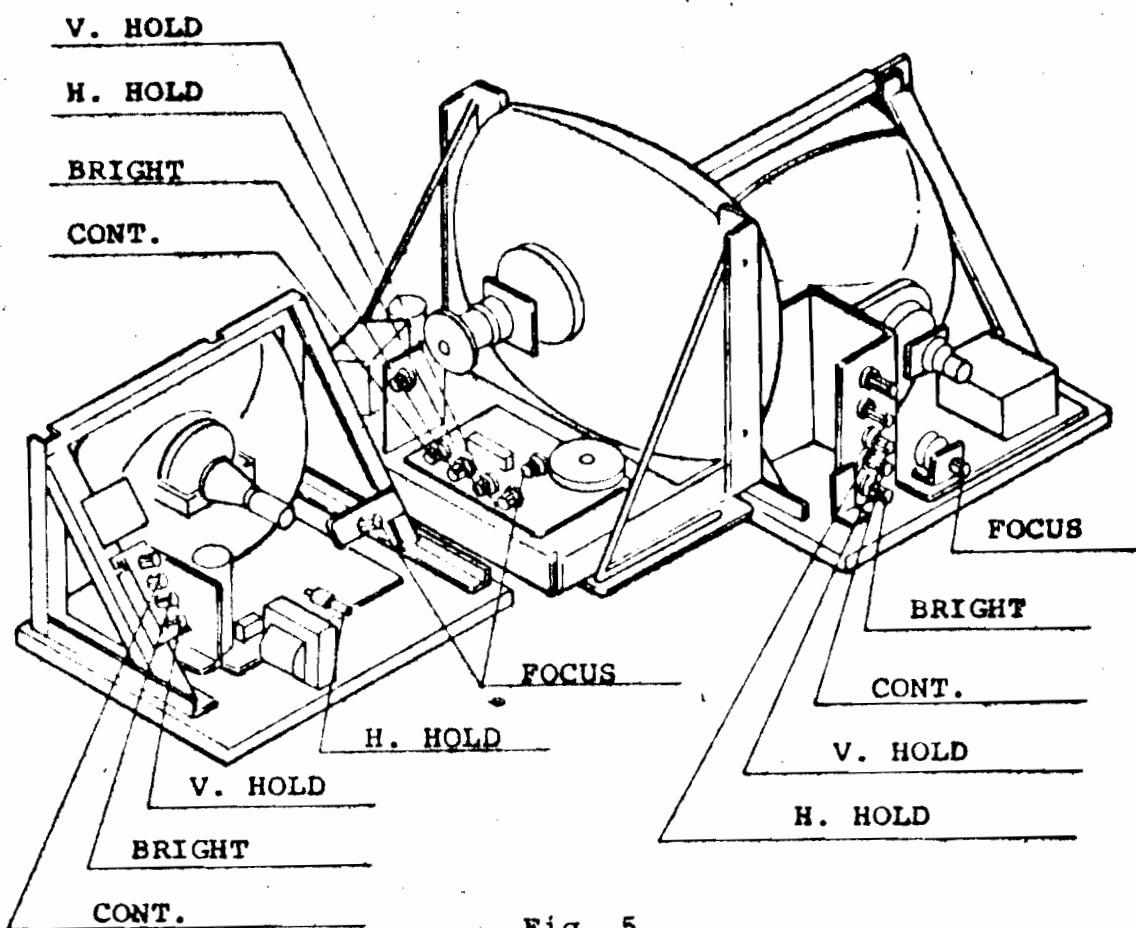


Fig. 5

The TV monitor is properly adjusted before shipping, however, if necessary, readjust as follows:

- **Horizontal Hold**

Adjust the H. HOLD control if the picture is warped or broken into diagonal lines.

- **Vertical Hold**

Adjust the V. HOLD control if the picture rolls vertically across the screen.

- **Screen Contrast and Brightness**

Adjust the CONT. and the BRIGHT controls to keep the screen clear.

- **FOCUS... Screen Focus Control**

Note: The TV monitor of Taito "SPACE INVADERS" is for exclusive use, therefore, it can not be replaced with other models.

9. Adjustments of Supply Voltage (See Fig. 6)

If the voltage of the power supply is low, the picture on the screen sometimes flickers. In that case, change the terminal of the power transformer in the cabinet.

This adjustment is obtained by the use of the change-over switch.

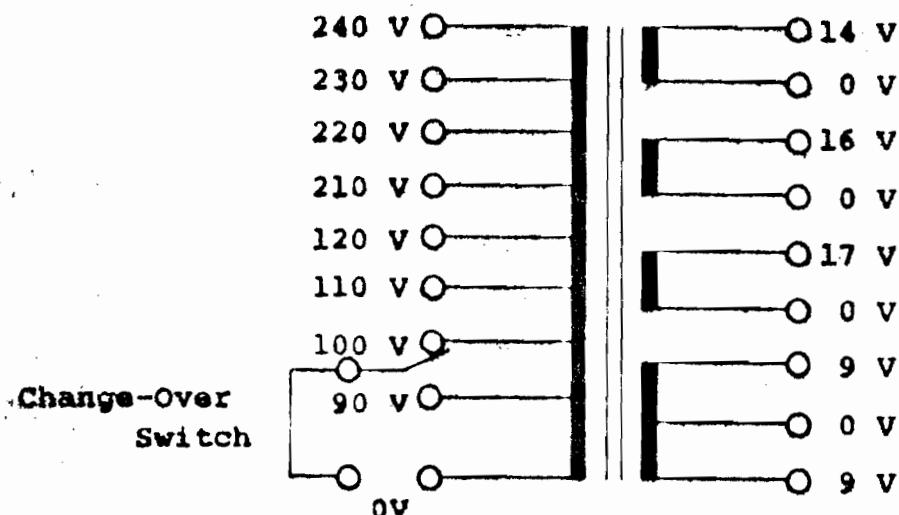


Fig. 6

10. Typical Picture During Play

(See Fig. 7)

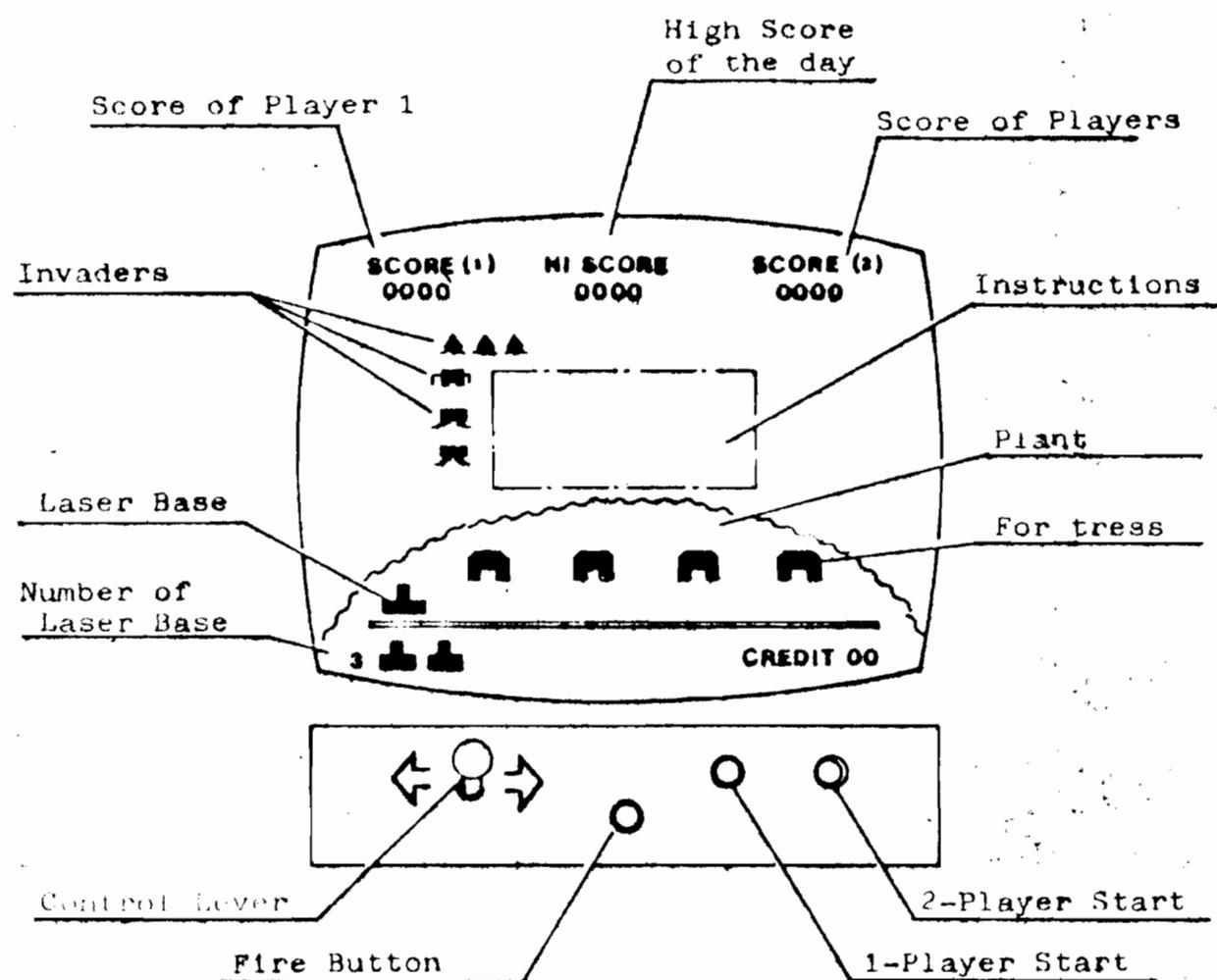
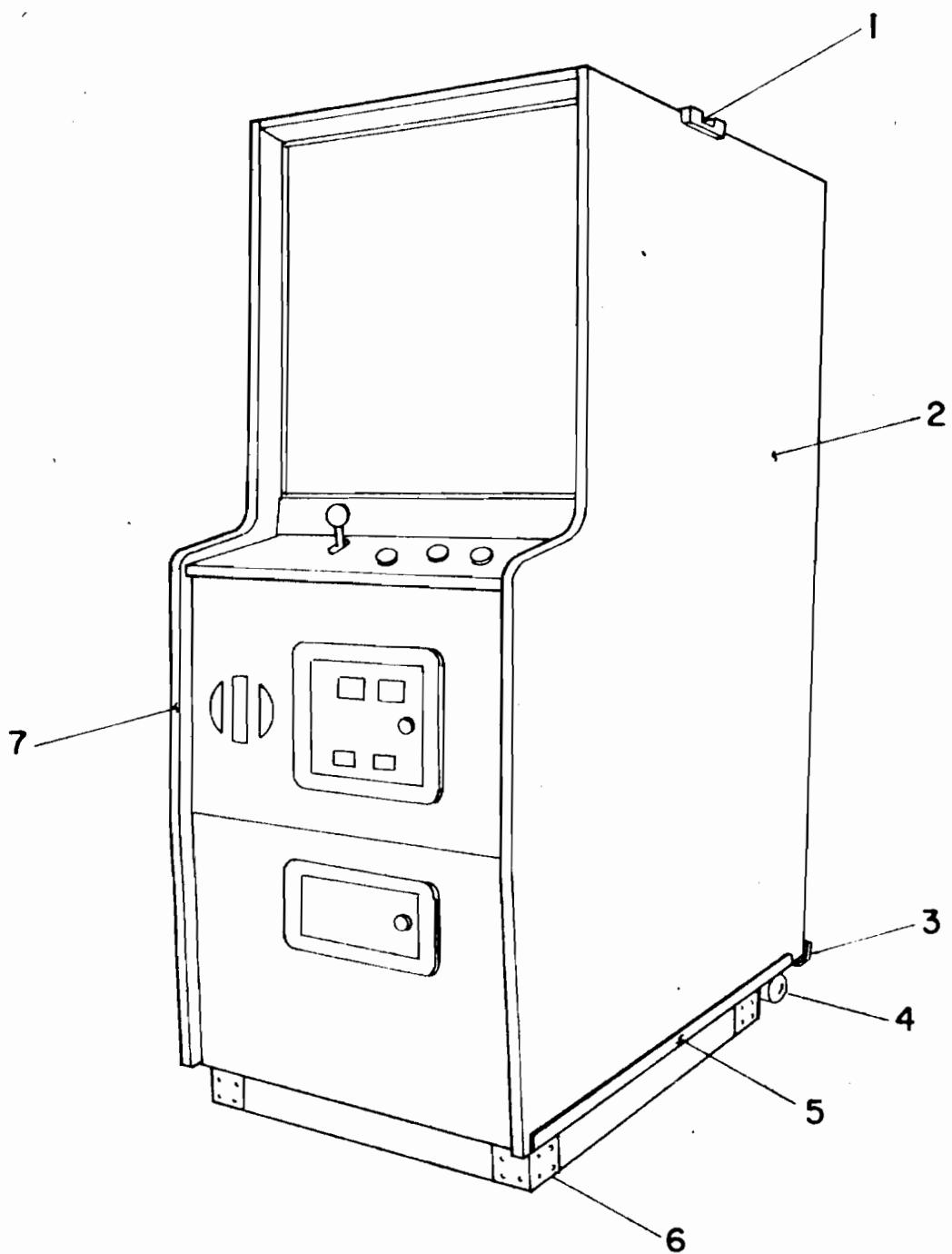


Fig. 7

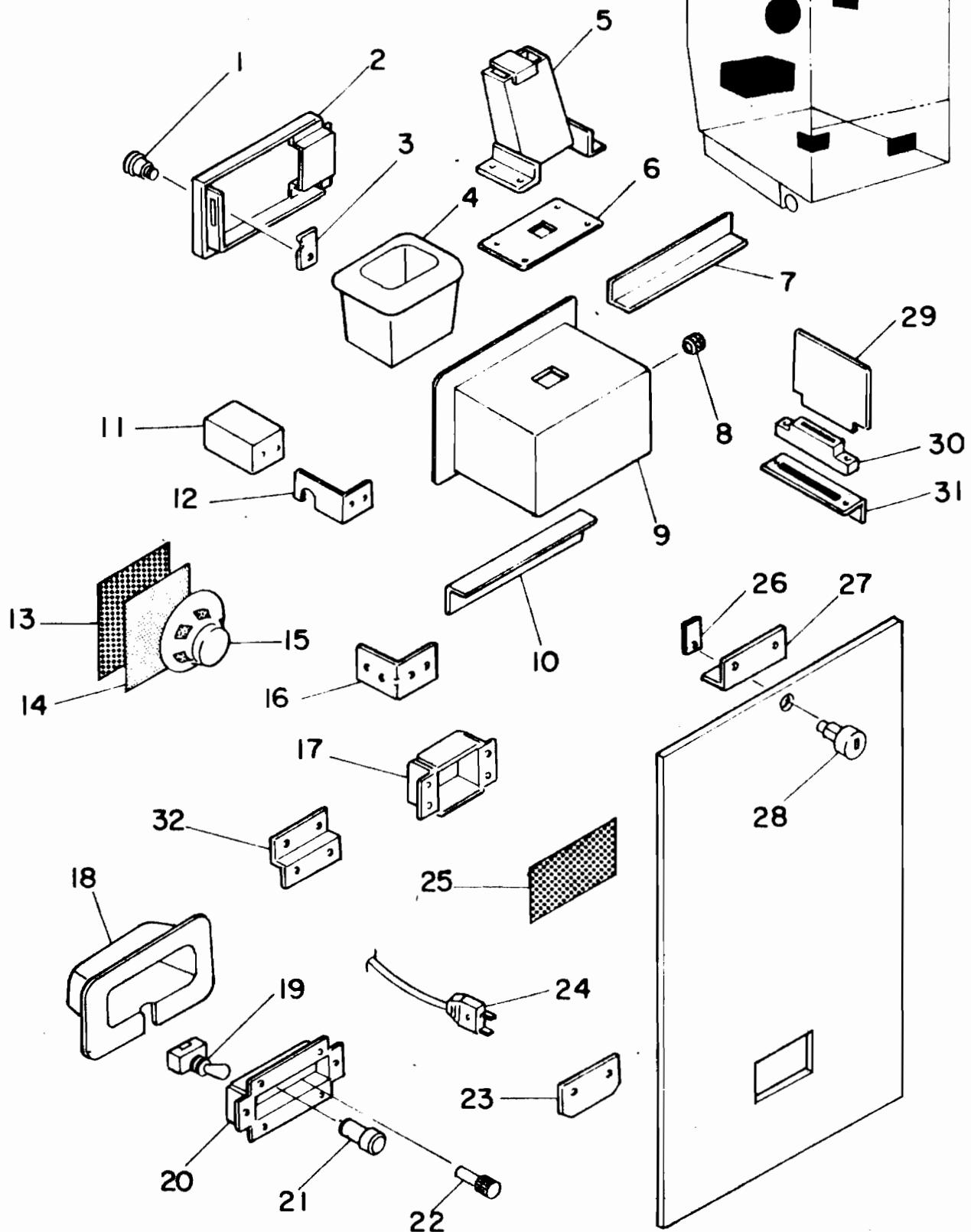
CABINET ACCESSORY ASS'Y

See page 20



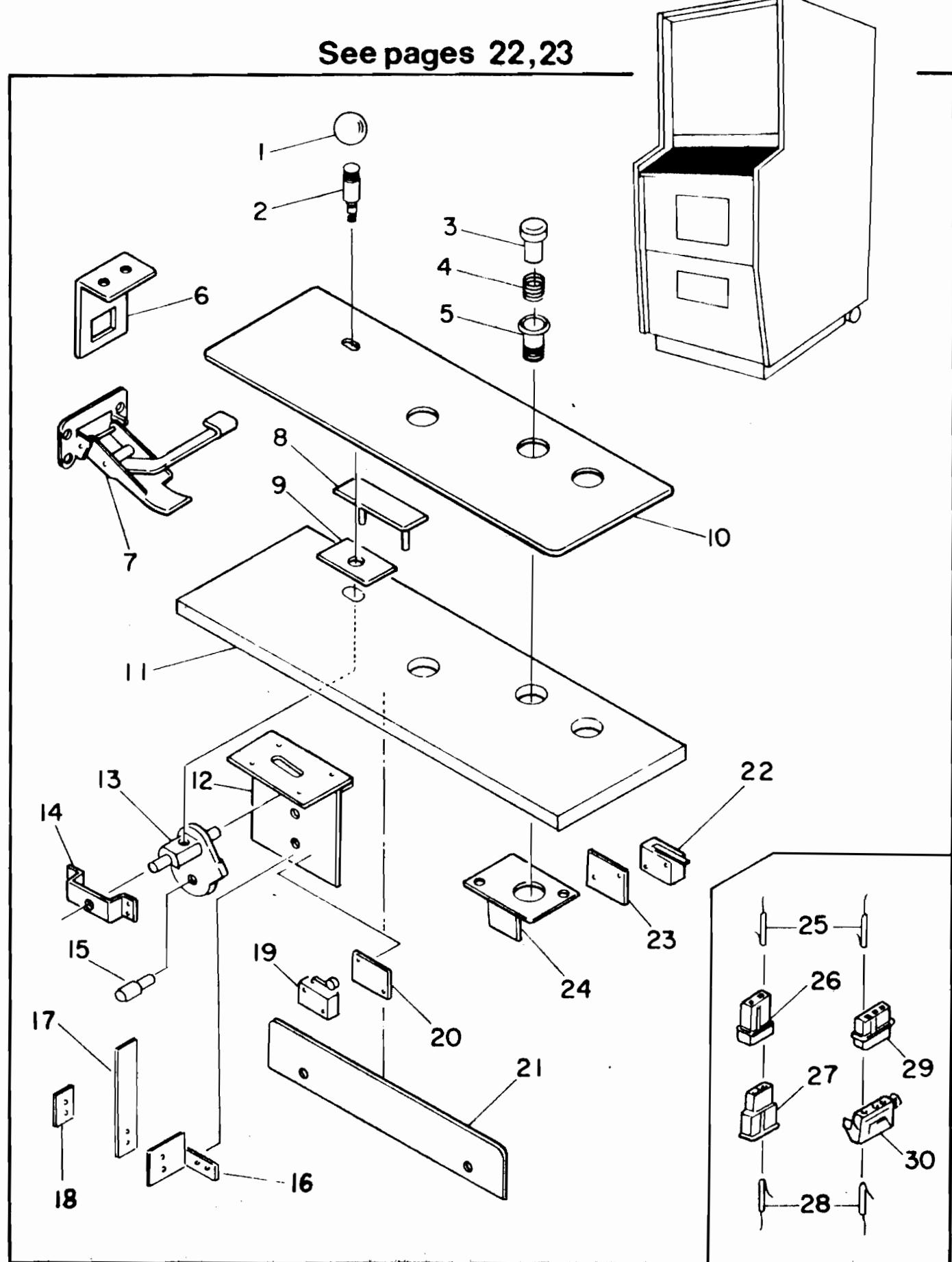
CABINET ASS'Y

See pages 20, 21, 22



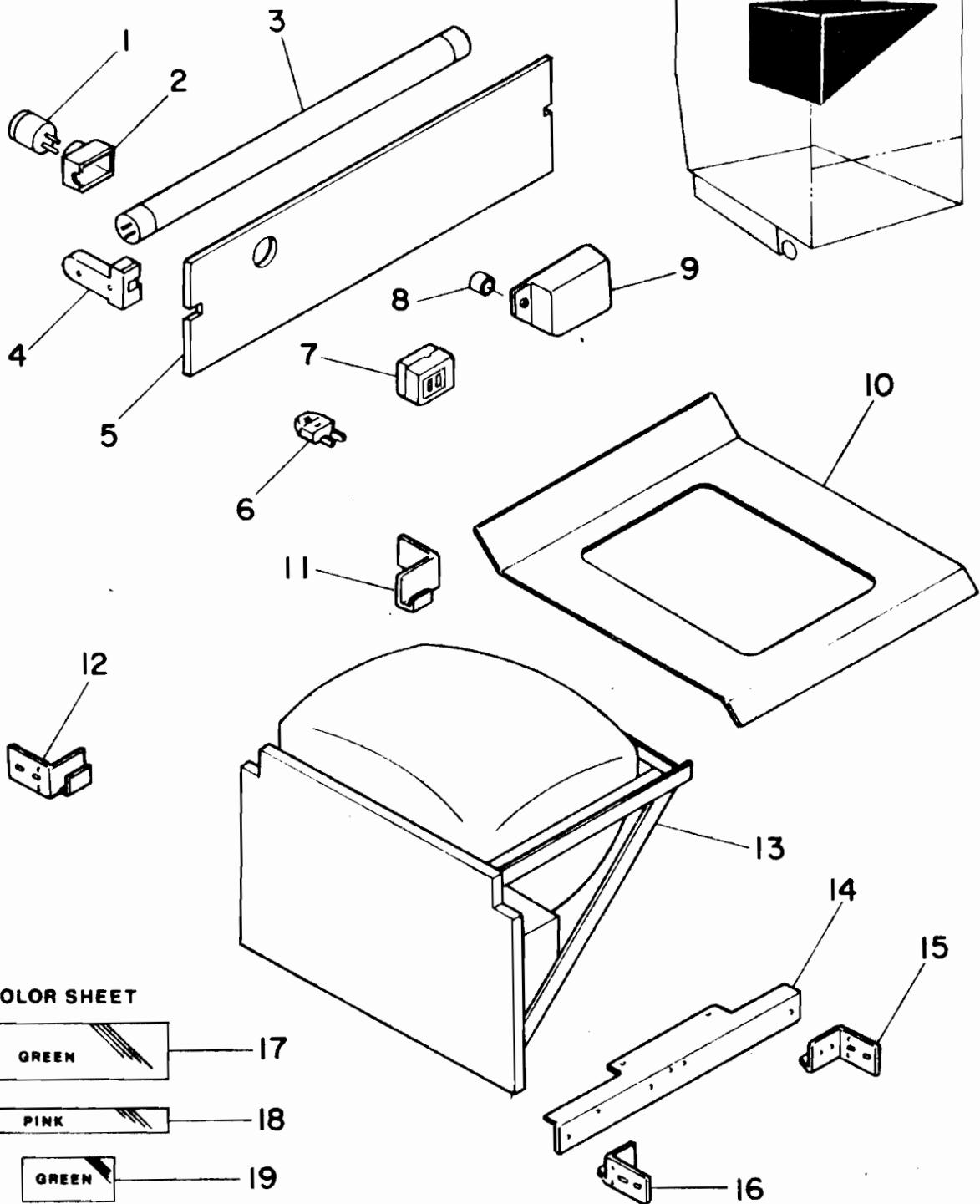
CONTROL PLATE ASS'Y

See pages 22,23



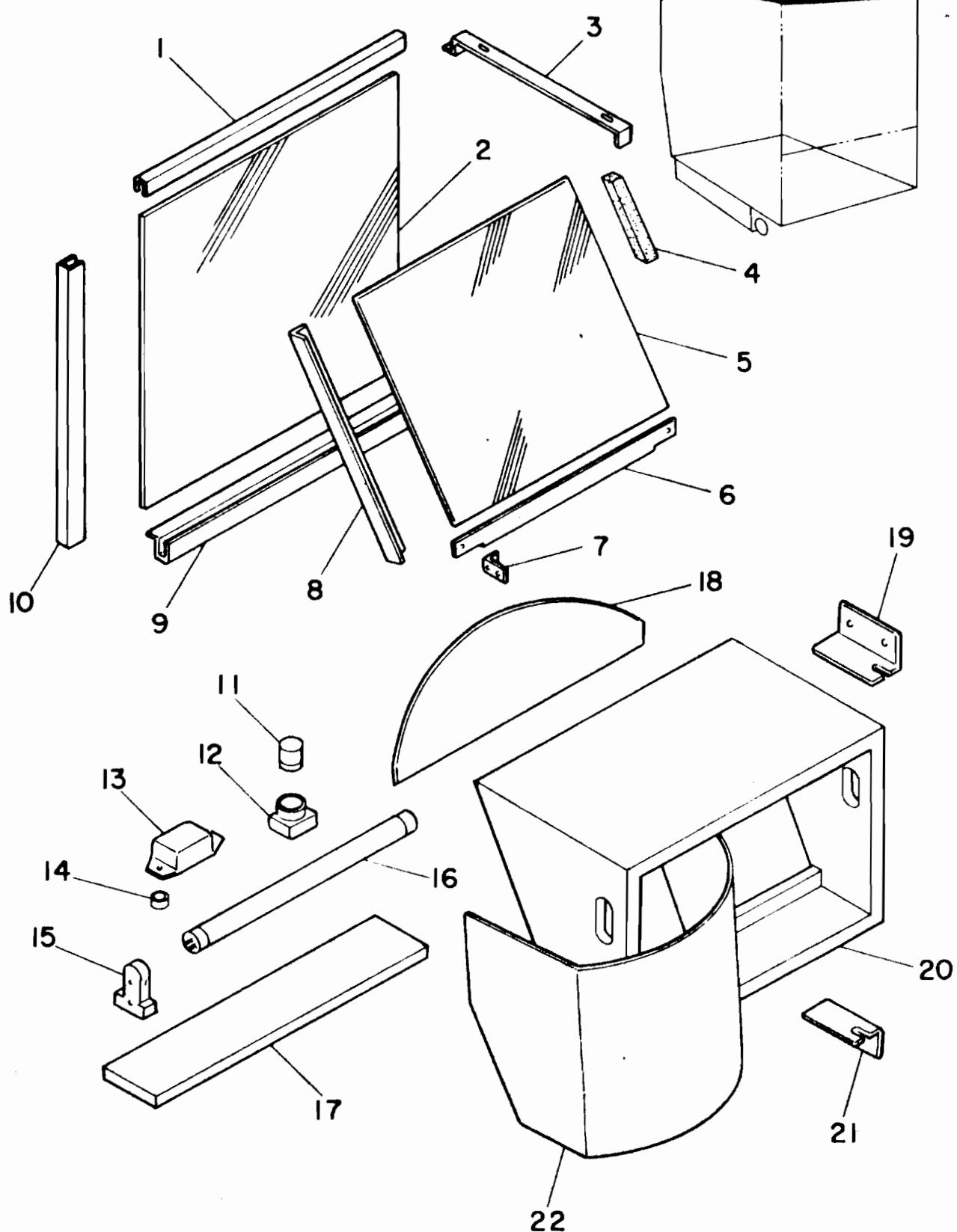
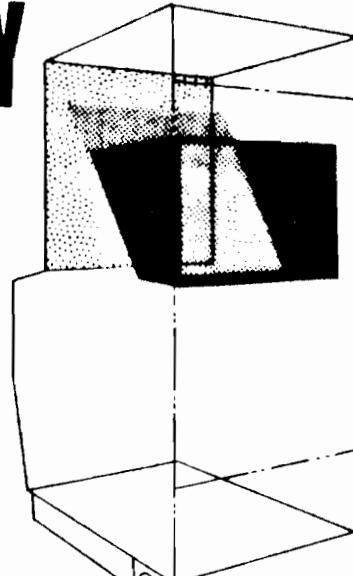
VIDEO AND FLUORESCENT LAMP ASS'Y

See pages 23, 24



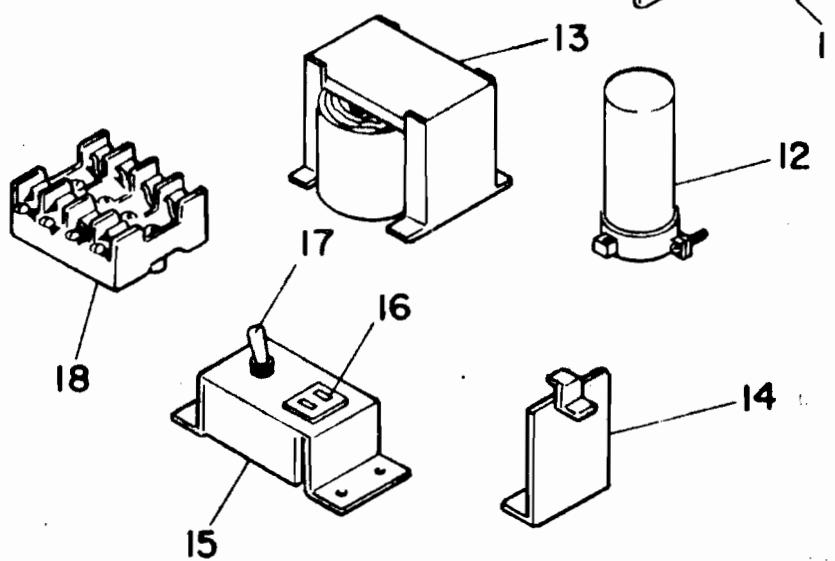
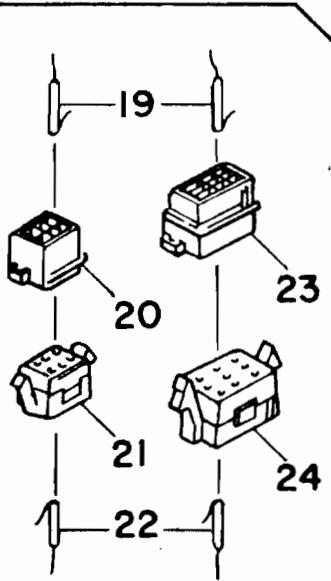
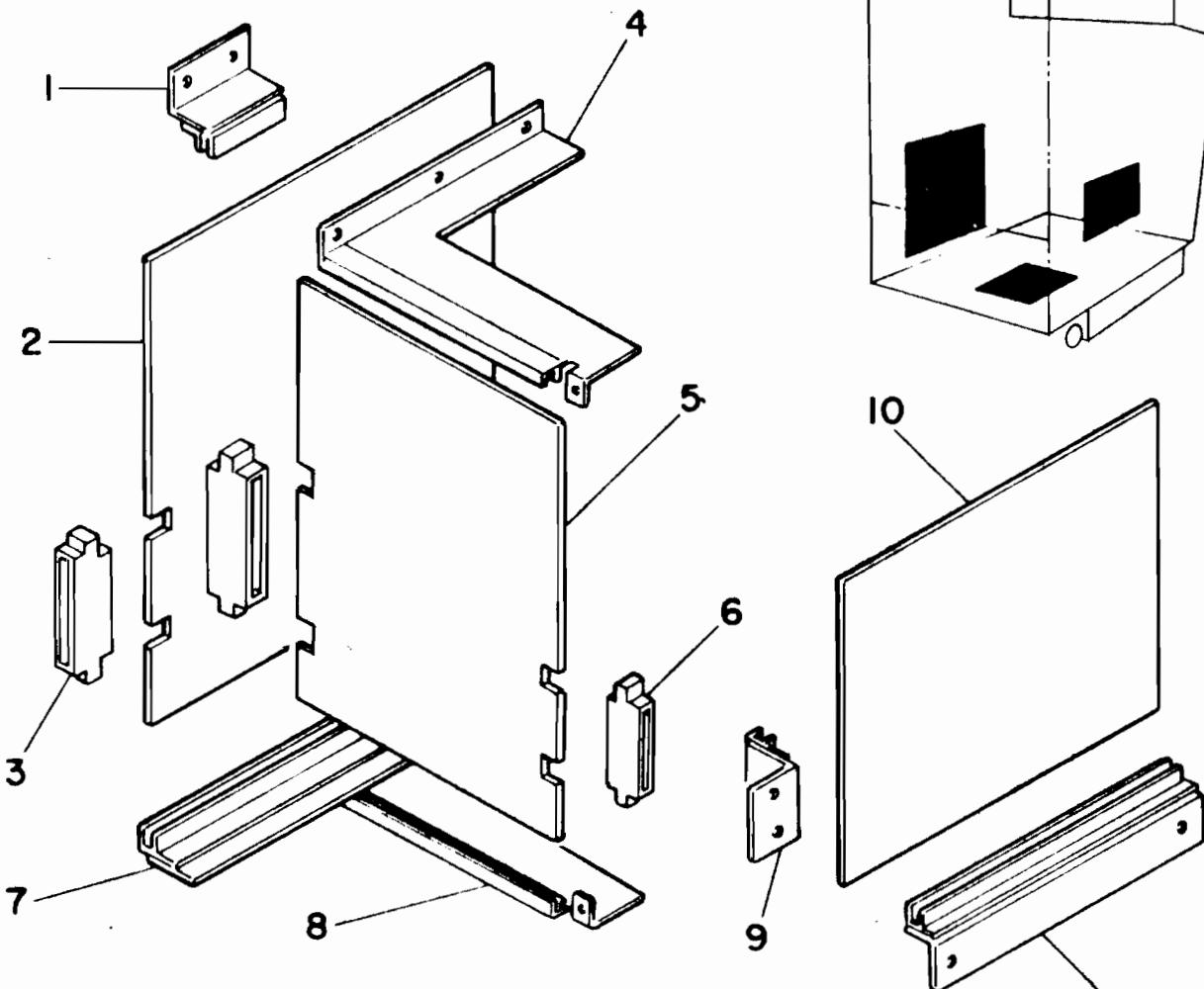
PLAYFIELD ASS'Y

See pages 24, 25



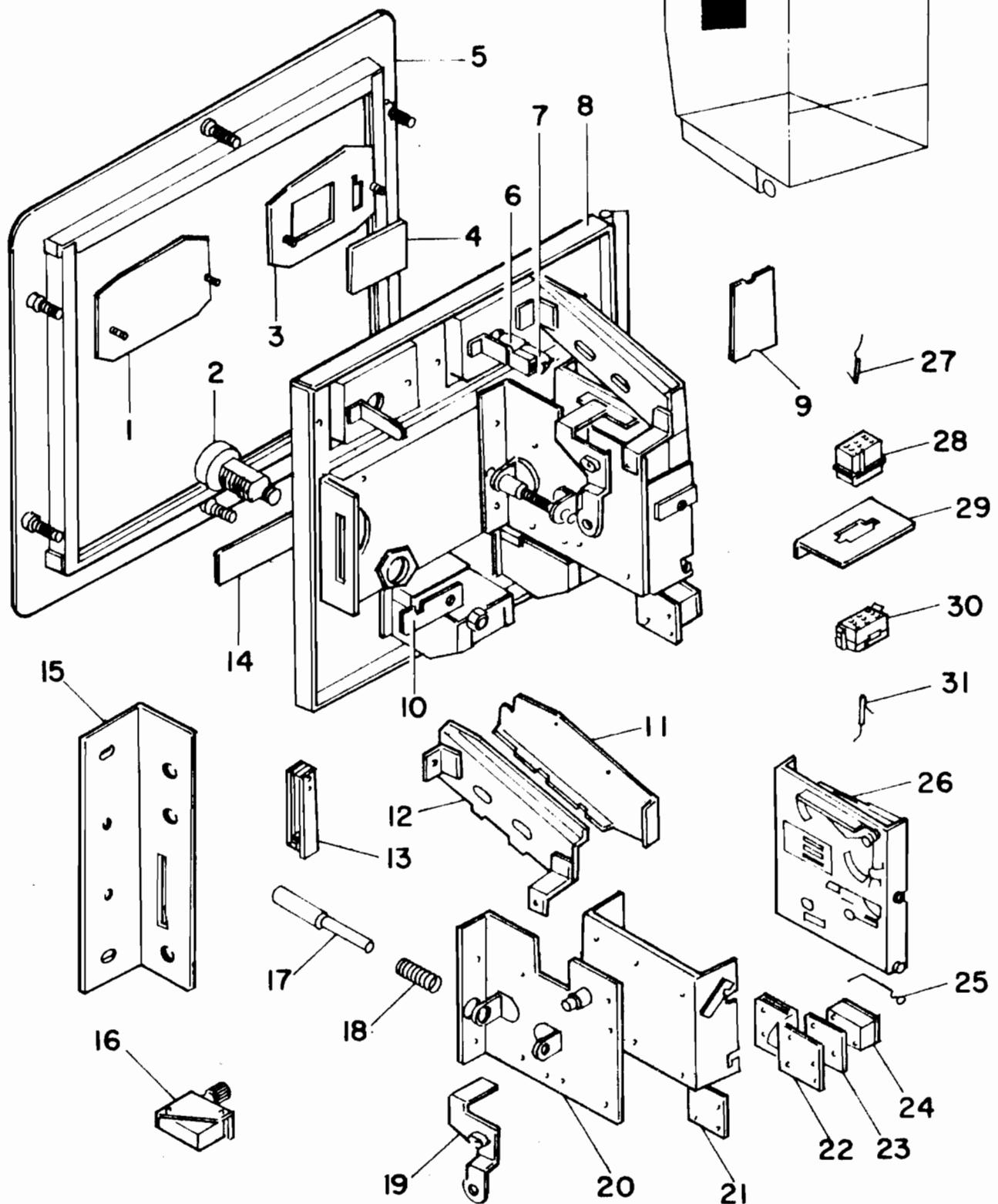
PRINTED BOARD AND REGULATOR ASS'Y

See pages 26, 27



FRONT DOOR AND COIN MECHANISM ASS'Y

See pages 27, 28



CABINET ACCESSORY ASS' Y

Item	Part #	Description
1	AAO14511	Molding
2	SVO10001	Cabinet
3	SLO30011	Corner Protector
4	AAO16513	Caster
5	SVO30004	Corner Protector
6	AAO13519	Corner Bracket
7	AAO19524	Edge

CABINET ASS' Y

Item	Part #	Description
1	AAO16545	Lock & Key
2	AAO26512	Cash Box Door
3	AAO13583	Lock Plate
4	AAO28506	Cash Case
5	AAO25510	Coin Chute
6	AAO13609	Plate
7	AAO13580	Cash Box Guide (B)
8	AAO18504	Grommet NG-79-C

9 AAO28507 Cash Box

10 AAO13579 Cash Box Guide (A)

11 AAO51717 Counter ME-5

12 AAO13581 Counter Bracket

13 AAO13562 Ventilator

14 AAO19526 Net

15 AAT71011 Speaker 8Ω 20W 16cm

16 AAO13584 Support Bracket

17 AAO13512 Handle Cover

18 AAO19542 Switch Cover

19 AAO52501 Toggle Switch S-301

20 AAO13594 Switch Box

21 AAO55784 Fuse Holder S-N 2056

22 AAO56508 Earth Terminal T 375

23 AAO13523 Door Stopper

24 AAO62501 A C Cable & Plug Ass'y

25 EPO30010 Ventilator

26 AAO13510 Lock Plate

27 AAO13569 Lock Guard (B)

28 AAO16549 Service Lock #67800

29 AAM50007 Counter Drive P. C. Board Ass'y

30 AAO55720 Connector 10P

31 AAO13584 Connector Bracket

32 AAO13587 Support Bracket

C O N T R O L P L A T E A S S ' Y

I t e m P a r t N o D e s c r i p t i o n

1 BPO90003 Color Ball

2 BWO20001 Control Shaft

3 AAO19533 Push Button

4 BPO50001 Spring A

5 AAO19534 Push Button Housing

6 RMO30003 Hook

7 AAO16554 Super Cramp C-137

8 WNO30005 Lock Plate

9 WNO30006 Slide Plate

10 SVO70015 Control Panel

11 SVO10005 Control Board

12 SVO30007 Switch Base

13 WNO30004 Cam

14 SVO30008 Stopper Bracket

15 SVO20001 Shaft

16	SVO30009	Spring Bracket
17	WTO50001	Plate Spring
18	WTO30007	Washer
19	AAO52532	Micro Switch
20	AAO19504	Insulator Type-V
21	RMO30004	Stop Plate
22	AAO52531	Micro Switch VL-11L
23	AAO19504	Insulator Type-V
24	BPO30002	Push Switch Bracket
25	AAO55789	Mate-N-Lok Plug Pin
26	AAO55501	Mate-N-Lok Cap 2P
27	AAO55502	Mate-N-Lok Plug 2P
28	AAO55790	Mate-N-Lok Socket Pin
29	AAO55521	Mate-N-Lok Cap 3P
30	AAO55522	Mate-N-Lok Plug 3P

VIDEO AND FLUORESCENT LAMP ASS'Y

Item	Part #	Description
1	AAO54720	Glow Lamp FG-1P
2	AAO55695	Glow Socket
3	AAO54711	Fluorescent Lamp 15W

4 AAO55694 FL Socket
5 FFO10005 FL Board
6 AAO55713 AC Plug WH4012
7 AAO55715 AC Socket WK1012
8 AAO12510 Spacer
9 AAO57504 Ballast 15W
10 SVO70007 TV Mask
11 SVO30005 Video Bracket (A)
12 SVO30006 Video Bracket (B)
13 SVO90008 Video
14 BWO30004 Video Angle
15 SLO30013 Video Bracket (C)
16 SLO30014 Video Bracket (D)
17 SVO90010 Color Sheet (A)
18 SVO90011 Color Sheet (B)
19 SVO90012 Color Sheet (C)

P L A Y F I E L D A S S ' Y

I t e m P a r t N o D e s c r i p t i o n

1 FFO30010 Glass Retainer Top

2 SVO70002 Title Panel
3 BPO30023 Lock Plate (B)
4 AAO18552 Rubber
5 MSO90010 Half Mirror
6 BWO30005 Mirror Bottom Plate
7 MSO30007 Bracket
8 MSO30005 Glass Retainer Bracket
9 FFO30011 Glass Retainer Bottom
10 SVO30003 Glass Retainer
11 AAO54720 Glow Lamp FG-1P
12 AAO55695 Glow Socket
13 AAO57504 Ballast 15W
14 AAO12510 Spacer
15 AAO55694 FL Socket
16 AAO54715 Black Light FL 15BL
17 SVO10004 FL Board
18 SVO70006 Playfield
19 SVO30001 Bracket (A)
20 SVO10002 Field Case
21 SVO30002 Bracket (B)
22 SVO70005 Decoration Board

PRINTED BOARD AND REGULATOR ASS'Y

Item	Part #	Description
1	BPO90007	P. C. Board Guide (C)
2	SVN00002	S. V. -C. P. U. -P. C. Board Ass'y
3	AAO55949	AMPLEAF Connector 18P
4	SWO90022	P. C. Board Guide (B)
5	SVN00001	S. V. -Game P. C. Board Ass'y
6	AAO55948	AMPLEAF Connector 15P
7	BPO90006	P. C. Board Guide (B)
8	SWO90021	P. C. Board Guide (A)
9	AAO19527	P. C. Board Guide (A)
10	AAM60005	Power Supply P. C. Board Ass'y
11	AAO19528	P. C. Board Guide (B)
12	AAT41166	Capacitor 16LASN-2200
13	AAO57562	Transformer
14	AAT14025	Rectifier 12C20 (A)
15	AAO13599	Socket Box
16	AAO55788	AC Socket S-1520
17	AAO52535	Toggle Switch S-2A
18	AAO55805	Fuse Holder F3321 4P
19	AAO55789	Mate-N-Lok Plug Pin

20 AAO55561 Mate-N-Lok Cap 6P
21 AAO55562 Mate-N-Lok Plug 6P
22 AAO55790 Mate-N-Lok Socket Pin
23 AAO55585 Mate-N-Lok Cap 9P
24 AAO55586 Mate-N-Lok Plug 9P

FRONT DOOR AND COIN MECHANISM ASS'Y

Item	Part #	Description
1	AAO21530	Coin Shield Plate
2	AAO16549	Service Lock #7800
3	AAO21533	Coin Entry Plate for ¥100
4	AAO29508	Price Card for ¥100 Coin
5	AAO26510	Door Fram
6	AAO54704	Pilot Lamp 12V 150mA
7	AAO55698	Vinyl Socket BA-9
8	AAO26511	Rejector Door
9	AAO19522	Cover Plate
10	AAO13578	Lock Plate
11	AAO25508	Coin Guide (B)
12	AAO25507	Coin Guide (A)

13 AAO68717 Tilt Switch
14 AAO17705 TAITO Name Plate
15 AAO13577 Lock Gard
16 AAO52511 Push Button Switch VAQ-4R
17 AAO27504 Cancel Rod
18 AAO15504 Spring
19 AAO13557 Lock Gard
20 AAO13554 Rejecter Bracket
21 AAO23501 Rejecter Holder
22 AAO25503 MS Coin Guide
23 AAO19502 Insulator Type 3
24 AAO52512 Micro Switch C-5G3-3
25 AAO53501 Actuator CAA-1
26 AAO22503 Rejecter for ¥100 FR-112F
27 AAO55789 Mate-N-Lok Plug Pin
28 AAO55581 Mate-N-Lok Cap 9P
29 AAO13527 Socket Bracket
30 AAO55582 Mate-N-Lok Plug 9P
31 AAO55790 Mate-N-Lok Socket Pin

SPACE INVADERS

